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ABSTRACT

An analysis of the general trends in nationwide educational planning in third-world countries shows that most educational plans to date have largely been limited to simple forecasting. Political and social factors that affect decisions on educational expansion have not been incorporated sufficiently into such forecasts. There continues to be a need for better quantification of what exists in the educational systems of most countries, within both the formal and nonformal sectors. Especially lacking, however, is good knowledge of the qualitative aspect of education as it relates to the aspirations of individuals, communities, and governments. New economic development strategies, such as those that stress employment and income distribution, will increasingly affect what happens in the education sector and suggest that educational planning must be linked more closely to new concepts of development. The future probably lies in many small incremental changes through continuous research and development strategies linked to planning efforts. Each country must develop its own capacity for continuous educational planning, research, and development in the search for education that has the quality, relevance, and efficiency appropriate in the national context. (Author/MLF)

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By Seth Spaulding

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Educational Planning: who does what to whom and with what effect?

Seth Spaulding

Sectoral planning is a fact of life in most third- and fourth-world countries. Most nations are attempting to adapt approaches pioneered by the more highly developed socialist and capitalist countries, especially those (unlike the United States) with centralized planning structures. Most are heavily influenced by sector survey and project planning approaches advocated by the various bilateral and multi-lateral agencies which provide technical cooperation funding and grants and loan capital for development goals. The influence of the economist is great, and most plans have an economic development bias.

Educational planning, however, is currently in a state of flux. Economists, realizing the ineffectiveness and inefficiency of educational plans in the past, are talking more like educators; and educators, realizing the need to link education more directly to national economic and social-development goals, are talking more like economists. A third horizontal trend is affecting both economists and educators. This trend is spearheaded by social scientists who suggest the need for education to be more aware of its possible role in economic and social change if it is to be effective in contributing to existing national goals and in creating a populace that can generate and achieve new and more appropriate goals.

What is Educational Planning?

An oft-quoted definition by Dror [16] is that planning is "the process of preparing a set of decisions for action in the future directed at achieving goals". Anderson [3] points out that this implies that educational planning should be future oriented and directed toward action; should suggest deliberative behaviour; should show relationships of interlocked decisions in the same and other sectors; should have consistency among its elements; and should allocate resources among various possibilities of action.

This kind of definition is reasonably culture-free, moves beyond earlier planning models which dealt primarily with forecasting, and leaves the door open to various approaches in generating the plan. It implies the need for planning at all levels of the education sector, and planners often distinguish between macro-planning, which sets the broad goals and broad categories of resource allocation, and micro-planning, which attempts to work out practical strategies for getting the plan implemented in the field.

All of this, of course, is easier said than done. Such a concept of planning suggests the need for comprehensive information on what now exists in the educational system, however defined, the apparent cost and effectiveness of each portion of the system in achieving goals, the present relationships between educational activity and other development sectors, who the clientele are and their perceived needs (including students, possible employers, the community, the state), etc. It implies powerful tools of projection so as to be able to estimate with some degree of certainty what might happen in social, economic, and political arenas if certain future alternatives are chosen in place of others. It implies close coordination with other sectors and a depth understanding of how human resources developed by and through the educational system likely will affect and be affected by developments in those sectors.

In the jargon of the systems analysis, educational planning consists of input, throughput, and output analysis and projection. In many (if not all) countries, there is inadequate information and understanding concerning the present and possible future inputs; what is actually happening in the system and what might happen with various policy changes (throughput); and lack of agreement as to what the likely future effect of changes in the system would have on students, the community, and the economy (output).

The fact is, to the dismay of most educational planners, that we do not have either the knowledge or the tools as yet to fully understand the inner workings of education and a social system, or of the effect of education as it interacts with other sectors and processes. A recent symposium on the macro-planning of education [52] elicits unanimous agreement that educational plans of the past have been either ineffective or inefficient and the question is raised as to whether or not planning is worth the effort. Plans more often than not have been the expression of hope on the part of economic development planners and in post-plan analysis this hope has been shattered with the realization that the plan has been largely ignored. Even the plans which limit themselves to relatively simple forecasting models, and which propose few changes of priorities or programs more often than not are found to be in error in post-plan assessment.

In essence, current practice in educational planning tends to be much too limited to paper and pencil exercises by planners with an economic bias, whereas it should be a long-term developmental process which involves many specialists and institutions in the education sector and other sectors and, indeed, the community itself. The process should be continuous, and point-in-time five-year plans are useful only in reviewing progress of the recent past and in setting broad goals and macro strategies for the ensuing planning period. Micro-planning for implementation, in turn, should be decentralized so as to place appropriate aspects of planning responsibility as close as possible to those who are responsible for implementation at all levels.

Who Plans Education?

In the 'first development decade' of the sixties, emphasis in most countries attempting to rapidly develop was on the growth of the gross national product. Economists readily recognized that human resources were an important input in the economic-development process. National plans stressed the need for middle- and high-level manpower and the need for schools and higher-education institutions to prepare this manpower.

Quantifiers dominated the educational-planning scene, most of them identifying with the discipline of economics and econometrics. The input, throughput, output model was simple: untrained people in: a process to educate through: and trained people useful in productive activities out. Educators were hard to find in many educational-planning offices. They were often handed a plan and told to implement it.

This approach is exemplified by a recent study by Correa [12] which attempts to judge the effectiveness of past Latin American educational plans according to their accuracy in predicting enrolments ('targets') in schools. He concludes that "a high proportion of employees with specialization in education and social science [in a planning office] has a negative effect on the degree of implementation of the plans. This conclusion is reasonable because the process of preparation and implementation of an educational plan does not require knowledge of pedagogy and social science" (p. 249). He further observes that "planning departments in which the personnel are specialized in planning, administration, and economics" are those which produced plans with "a high degree of implementation".

Correa completely avoids any qualitative analysis of the implementation of the plans he studies (and clearly states this obvious fact). A second group of planners concerned with the qualitative aspects, however, frankly state that it may be fortunate many plans using elaborate statistical models and employing scores of economists are, in fact, never implemented (Psacharopoulos in 52). The ideal, Psacharopoulos suggests, would be to invite a combination of "educators, sociologists, economists, psychologists (and) political scientists" to elaborate a macro-educational plan, but that this has never worked in practice, in part because they all have different concerns and have difficulty in talking the same language as one another.

Finally, there are a third group of theoreticians in planning who feel that centralized planning is self-defeating and that much more decentralized planning and decision-making is needed in order to relate education more concretely to the needs of individuals and communities [18]. This group would stress the relationship of educational activities to the aspirations of local communities, spread the cost of education among those able to pay (through, perhaps, taxing those who benefit from

education to pay for what they have received), and relate vocational and technical training more directly to the businesses, industries and traditional enterprises which would employ such skills (perhaps through increased responsibility of productive enterprises for the technical training of their own people, with or without help from the government and the formal education system).

The latter suggestion, around for some time [19,20], may receive new impetus with budding interest in the dynamics of self-managed, enterprises in developing countries [50]. Although worker-managed enterprises in both socialist and capitalist countries are not a new idea, and many have not shown complete success, there are some who feel that such enterprises show great promise in creating a new development dynamic. However, education and training on the job, under the responsibility of each self-managed enterprise, would be an essential part of any such effort.

In fact, in a recent global assessment of the results of the Unesco Experimental World Literacy Program in 11 countries, in which I participated as a UNDP consultant, we found that functional literacy activities undertaken in self-managed enterprises were, on the whole, more successful in attracting adults and more efficient imparting useful skills than the traditional kinds of programmes under the aegis of the public-school system. There were, of course, problems in getting these enterprises to devote sufficient priority to the educational activities when production norms required the full-time attention of those in the enterprise, leaving little time left for planning organizing, and participating in educational activities [48].

There is, then, no consistency either in theory or in practice as to who, precisely, should plan, nor any agreement as to how they should go about it. There is reasonable agreement that most plans have been failures in terms of actual implementation, but many feel that this is a blessing.

At best, it can be said that macro-planning is usually done by an office in the Ministry of Education, an office which has more or less close linkage with the overall economic and social planning organism in the country, whatever that may be. This office may be staffed primarily by economists and administrators, who take the position that they need no knowledge of other social sciences or pedagogy, and that their function is to attempt to impose a manpower plan on the education sector which appears to match the economic-growth projections in other sectors. It may be staffed with educators and social scientists who take a broader approach to developing an educational strategy which they feel will contribute to economic, social, and political goals. Or it may be a combination of the two groups. Usually, the planning office is charged with providing others with information useful in decision-making and plan implementation, though some planning offices are charged with responsibility to supervise or monitor implementation. My bias is that such responsibility interferes with impartiality: the planning office must not be committed to implementation of any one strategy. It must constantly explore possible implications of various strategies, leaving the choice to others.

How is Educational Planning Done?

The several notions of what the planning process consists of stem directly from the different specialists who are involved in planning. All agree, however, on certain basics.

First, educational planning requires information. Until recently, in a number of countries, it was difficult to obtain such basic information as number of schools of what type in each region in the country (school mapping); number of teachers, their qualifications, their salaries; student flows at various levels (age of students, drop-out and repeater rates [i.e. 40] at various levels); capital expenditure by year, including cost of materials; and unit cost at various levels. Still, in a number of countries, data collection activities are done by an office quite independent from the educational planning office. Here, the planning office has little control over the kind of data that are collected, and thus is often lacking data needed for various planning activities. The trend increasingly is to place data collection activities under the planning office.

Even when such internal quantitative data are available, there is usually not much information on such things as non-formal education activities, either under the Ministry of Education or under other ministries, nor on the educational programmes of non-governmental organizations with educational objectives [44]. A Ford Foundation-supported Center for Non-Formal Education in Colombia recently identified over 8,000 non-formal education activities throughout Colombia, over 1,000 in Bogotá alone. These activities are largely ignored in data-collection and planning activities in the Ministry, even though Colombia has a unique system of subsidizing many of these groups through grants and subsidies.

Beyond internal information on the quantifiable aspects of the education system, the educational-planning office needs various kinds of information from other ministries and especially from the office that coordinates national planning. Development priorities must be known, if there is to be an effort to gear the educational plan in such a way as to be supportive of overall goals of the government. Population projections, usually available from other government offices, help in judging social demand for education. Industrial and rural-development emphases of the various ministries need examination to be able to estimate at least general trends in manpower needs at various levels. Social programs of other ministries need study to see if there can be some coordination of facilities and services with those of the education sector.

If there is a good nationwide planning office, much of this information is available in the form of preliminary documents issued by that office. For instance, the Economic Planning Board in Korea issued in June 1975 its draft Guidelines for the Fourth Five-Year Economic Development Plan to help various ministries in generating their portion of the fourth plan, which begins in 1977. Simultaneously, also in June 1975, the Korea Development Institute, a development-research centre

under the Economic Planning Board, issued a 285-page draft Discussion Paper on the Development Strategy for the Fourth Five-Year Plan, 1977-1981.

In these two documents, the various ministries have a complete quantitative and qualitative assessment of how the current plan is progressing, and where the government likely will place emphases in the next plan. In the longer Discussion Paper, not only economic-growth policies and trends are discussed, but various social policies as well. Of particular interest to the education sector are sections on employment projections and manpower policies, the New Village Movement (a key policy of the government is to develop rural areas and to encourage more equitable distribution of income); social development and equity; population projections and policies: policies concerning urban population problems; issues and policies of regional development and infrastructure. These preliminary documents do not follow a ministry-by-ministry approach, but rather look at the entire social and economic structure of a country as a whole, with the idea that each sector and each ministry will then plan a programme which will support the global efforts of the country.

Preliminary planning efforts of the Ministry of Education for the fourth five-year plan have been entrusted to the Korean Educational Development Institute (KEDI), which not only undertakes policy and planning research, but does research and development on curriculum, teacher education, and on new delivery systems. Thus, KEDI forms a logical link in the planning process between policy and implementation.

KEDI, as of late 1975, was already well along with studies to help the Ministry of Education and the government leadership in general to decide how to allocate resources in the education sector in a way to maximize the sector's contribution to the fourth five-year plan to begin in 1977. One goal of the fourth plan is to limit population growth: KEDI has done curriculum studies to show where population information might be included in existing subject-matter areas at each grade level and where new units and courses might be introduced. A second goal is to increase investment in heavy and chemical industries: KEDI is undertaking studies of pre-vocational training at the middle school and curriculum-development studies to prepare for more intensive preparation of technical manpower at the middle levels (there is already sufficient supply of high-level manpower). A priority goal is to increase productivity in rural sectors: KEDI has undertaken a variety of studies of the role of the school in rural development and has suggested various alternatives for intensifying that role. All of these, and other studies, are done with full cooperation and involvement of various provincial school boards, public schools, professional organizations, universities, and community leaders, thus assuring that there will be no surprises when new programs are announced.

KEDI, as an educational policy, planning, and research organization under the Ministry of Education, does not in fact make decisions as to allocation of resources in the macro-plan or in the micro-planning which determines actual implementation strategies. It does, however, make clear to the decision-making bodies in the Ministry of Education and in other ministries what the possible implications of various approaches might be (not only in quantitative but in qualitative terms), and it undertakes pilot projects on a continuous basis to test out some of its assumptions. This model is somewhat unique among most countries and has much to be said for it. A Ministry of Education is primarily an administrative organization, charged with building schools, paying teachers, keeping track of students, and all of the other things that a ministry must do to keep people paid and institutions running. It makes sense to have a planning and research institution under the ministry but not burdened with the day-to-day administrative chores.

At the other end of the spectrum are the small planning offices in some Ministries which handle mostly forecasts and projections of the status quo. It is these offices which most often find that their plans are qualitatively faulty. Critical decisions on curriculum, on allocation of resources, on qualitative matters which impinge on quantitative predictions are rarely considered by these offices, and although many use intricately sophisticated statistical tools in forecasting the future, they are rarely well enough informed of factors affecting the future to make the judgements necessary for good planning work.

A third general model is that used in recent planning exercises in Ethiopia, Tanzania, and Peru. In these countries, there are, of course, offices to manipulate known quantitative data which may be of interest to decision makers, but the planning process itself is highly diffused and decisions are based largely on the result of a long process of community involvement at all levels. Extensive policy sessions have been held in communities throughout each nation with participation on the part of all sectors of the population. Such 'participatory planning' is somewhat messier than the econometric variety, but it recognizes the social dynamic of education and its relationship to the aspirations of communities and individuals. It is hoped that those countries which have adopted such processes will continue them for a sufficient period to accumulate data as to the long-term results of such a process. In a sense, such a strategy links planning to continuous feedback mechanisms and to a policy of continuous reform and improvement.

What are Some of the Quantitative Techniques?

Since one of the prime goals of educational planning is to optimize the contribution of the education sector to economic growth, it was logical to assume that some sort of manpower planning would be relevant to education. These approaches in their purest form are exemplified by Zhultz [41] and earlier work of Harbison and Myers [25]. Later work of Harbison [22, 23, 24, 35] takes a much more ecclectic approach and suggests that manpower planning has severe limitations.

Manpower planning assumes that one can determine the number of middle- and high-level specialists one will need to fill the posts which will likely be available in the economy of a country for some years to come. Experience has shown that such predictions are rarely accurate for one very simple basic reason: economists have never learned how to predict accurately the direction an economy will take nor the job market within that economy. Furthermore, manpower planning is inelastic and usually (though not always) is limited to trying to match numbers of secondary and higher-education graduates to the number of jobs that will be available that will require that level of education. Sophisticated models assume that required qualifications will gradually increase over years (with the increase in levels of education in a country), and there is the implicit assumption that what happens in school at each level will be appropriate to the jobs that will exist. Technical and vocational education is often stressed as appropriate to generating some of these skills with the assumption that these schools prepare people qualified for the jobs that will be available and that employers will hire these graduates.

The labour market, however, never operates the way the manpower planners would like it to. Neither do the students in schools. Often, the better students will not take the vocational courses, and employers often hire the students who have pursued academic rather than vocational curricula because they know these students are the best [38]. Also, manpower plans ignore other goals of education: concerns of equity, of national identity, of satisfying social demand, of preparing people so that they can generate development rather than simply wait for a job in a governmentally planned industry [19, 23, 24, 52]. Finally, manpower planning usually ignores manpower needed for traditional and rural sectors, where current priorities of many countries lie [20].

Currently in vogue is the more elastic cost-benefit approach (sometimes called 'rate-of-return' approach) whereby the initial or lifetime income of those who finish certain levels of schooling is matched against the cost to society and the individual of education at that level [5, 38]. Those levels which produce greatest return to the individual and society (in terms of initial or lifetime incomes of the individual) are considered most beneficial and thus merit greater attention and investment in the future. This is based on the notion of a free labour market in which employers pay according to the productivity employees.

This approach has limitations because there are few labour markets that work as they theoretically should. Government salaries are artificially set, usually by education level of the employee, and these salaries influence all others in the productive sectors. Although this can (theoretically) be taken into account in rate-of-return analyses [5], such analyses do not take into account other goals of education than productivity, and few such analyses have as yet proven to be accurate in the long term.

Based on the limited rate-of-return analyses done in various countries, there is some current feeling that there should be increased investment in elementary education and in adult and non-formal, including on-the-job training. These kinds of education cost least and can be shown to return more for each unit of investment than higher levels of education, especially in countries which have over-expanded higher levels of education to the point of having problems of educated unemployed and under-employed [42].

A third approach might be termed 'synthetic' [i.e., 14, 22, 23, 24, 42, 51, 52] or in the words of Harbison, a "human resource approach." Harbison suggests that:

> The techniques of human resource assessment range far beyond the traditional type of statistical surveys of high level manpower. They involve continuous enumeration of the labor force, tracing of career patterns of school leavers and university graduates, the study of labor absorptive capacity of different industries and activities, the calculation of cost-effectiveness of investments in human resource development, and many other aspects of education and manpower utilization. Indeed, a human resource assessment is really an assessment of the entire national development process from the perspective of human aspirations and the welfare of a nation's people. [22; p. 23]

Within all of the above, specialized quantitative techniques such as linear programming, econometrics, and statistically based modelling and simulation are useful. These are modes of analysis, however, and not conceptual approaches to planning.

What are Some of the Qualitative Concerns?

Even the hard-core quantifiers will usually admit that there are qualitative concerns that may influence what should happen in education. The quantifiers, however, have found difficulty in measuring these concerns and so, on the whole, tend to ignore them.

Quantifiers, of course, point out that social demand often destroys the best laid plans. Social demand is closely linked to political decisions since those in power usually wish public support for their leadership, and the public demands expanding educational services, whether a manpower plan or rate-of-return analysis shows that they are necessary or not.

Although most who place emphasis on qualitative issues in educational planning would not contest the need for some quantitative realism in educational planning, they would argue that there are more important issues to be resolved if education is to better serve the individual, the community, and the nation in the long run. These issues revolve around the question: Education for what?

The more radical reformers, such as Illich [26], Carnoy [7], Freire [21] and La Belle (in 18) would argue that the formal school system perpetuates social and economic inequities and that either the social and economic system must be abruptly and drastically altered before education can have any qualitative effect or that the educational system itself must prepare people to take leadership in effecting social and economic change. In the style of Paulo Freire, education must raise the consciousness of the people so that they can make the changes in their lives and in their cultures that will bring social and economic unity. Paulston [36] explores the literature of non-formal education and points out that few studies examine the potential of alternate strategies of educational development to develop the leadership necessary for appropriate social and economic change.

The ILO World Employment Program takes a somewhat more restrained approach than some of the social critics mentioned above, but to the same end [4, 31, 42]. In a variety of employment-policy studies in a number of countries, including Kenya (1972), Iran (1973), Ceylon (1971), and Colombia (1970), ILO teams, often with the assistance of the Institute for Development Studies at Sussex University (UK) examine the entire development strategy of a country from the point of view of its effect on employment generation and income distribution. Most of these studies have found that there is too great an emphasis on capital-intensive development which uses small numbers of trained people and which does not distribute the income equitably among the population. These studies stress the need for greater emphasis on intermediate technologies which will improve productivity of rural and traditional sectors and greater investment in these sectors, with the goal of greater involvement of larger numbers of the labour force in productive enterprise and more equitable distribution of income. Implied also is the need for greater use of internal resources for the benefit of all the people, and less stress on the competition in international export markets.

The educational-planning implications of such an approach are reasonably clear. There should be much more investment in education at all levels geared to traditional and rural sectors, where the masses of the people are employed. This education should be qualitatively altered to deal with the productive pursuits of the rural and traditional sectors and should not consist solely of traditional education designed to prepare the élite for jobs in the modern sector [13, 39]. Even higher education should stress the preparation of technicians who can work with the intermediate technologies appropriate to developing rural and traditional sectors, rather than dealing solely with the high technologies appropriate to capital-intensive modern sectors.

This argument leads to the logical conclusion that many of the trappings of traditional education are inappropriate and unproductive. Educational and employment planning, when done in the context of the ILO World Employment Program, would suggest that there should be a de-emphasis on traditional examinations in favour of more clearly defined content which matches needs of individuals in traditional and modern sectors; greater emphasis on on-the-job and apprentice training; equitable distribution

of educational facilities in all geographic regions (rather than the bias toward the urban sector as at present); continuing-education facilities to allow students to return for further work when they need it (no matter what their age); compressed earnings differentials, so that salaries will not draw off so many young people into the modern sector; abolition of automatic salary scales by level of education in government service and government-run industry, and the substitution of competitive wage scales according to performance; and increased payment by students and their families for education received (perhaps through loans to be repaid out of future earnings).

As pointed out by Mark Blaug (in 42), no one knows what, indeed, would happen if such approaches were followed. We do know that it would be politically difficult for most governments to implement fully all of these strategies without major resistance from segments of the population.

The Search for Efficiency and Relevance

On the periphery of educational planning are a number of scholars and professionals who are searching for ways of restructuring the educational system so that it will be more efficient or relevant and for new delivery systems that will reduce the cost of education. The two most notable current fashions are non-formal education and educational technology.

It is not the purpose of this paper to survey trends in educational thinking in specialized areas. Suffice it to mention that Coombs [8, 9], Ahmed [2], Brembeck [6] and Paulston [36], among others, have recently been undertaking a number of studies on non-formal education for various international agencies which show that a number of isolated non-formal projects have shown reasonable promise, but the diversity of such programmes makes their rational incorporation into a national plan somewhat difficult unless we reconceptualize the total planning process. Similarly, various international agencies have sponsored a number of studies on educational technology, ranging from feasibility research on the possibility of using satellites to extend educational opportunity to attempts to show that radio, ground-based television, and programmed instruction have potential for increasing the efficiency and effectiveness of education. Although there is some evidence that television instruction can be used to accelerate curriculum reform and to extend educational opportunity (El Salvador and Ivory Coast are well-documented examples), most other uses of educational technology in developing countries are largely speculative (46 discusses educational technology in the United States; see 27 for sources of further information on educational technology in developing countries). Satellite instruction via television, although theoretically feasible from a cost point of view, is particularly questionable when one attempts to get agreement among several nations as to what they would want (or permit) to be transmitted to their schools, non-formal education establishments, and the general public via the satellite.

Other studies look at the role of the teacher (i.e. 32, 43) and at the content of education [17] in the light of changing needs and concepts of development. There are those who call for a new concept of 'life-long education', which would examine ways of offering educational opportunity to individuals no matter what their age - education not limited to what normally goes on in schools, but related to whatever people wish at whatever age [17]. There have been few attempts to consider the planning implications of such a notion [44]. In addition, numerous studies look at problems of educational innovation and why it succeeds or fails (i.e. 37). Finally, new techniques of educational administration, including systems approaches, critical-path analysis, and PPBS show some promise in training planners and administrators to look for inter-relationships in implementing plans. Few such approaches, however, have proven successful in controlling the many variables that affect planned implementation and most "systems" can best be described as "systematic approaches" to planning and administration of education.

The Multi-Lateral and Bilateral Agencies

Educational planning is influenced dramatically by the multinational and bilateral technical cooperation and loan agencies. All of these agencies commission influential policy and other studies (i.e. 17, 30, 31, 34, 42, 47) and send missions, at the request of governments to assess what is happening in education and to recommend technical cooperation or education-sector loan projects.

The World Bank maintains a cooperative agreement with Unesco and a staff of educators, economists, and other professionals is headquartered in Paris under this cooperative agreement who do nothing but sectoral review and project-identification missions [49]. AID and other bilateral agencies send similar missions [1]. The United Nations Development Program sends a variety of missions, in cooperation with UN specialized agencies such as Unesco, ILO, FAO, WHO, etc. to plan and evaluate educational activities and technical-cooperation programmes.

Unfortunately, there is less than effective collaboration among the various bilateral and multilateral agencies. Often, the reports of one mission are ignored (or not available to) other missions. Often the missions are contradictory in their recommendations.

These various missions undertake one or more activities within the Harbison classification of levels of educational planning [23]:

1. Sector surveys which develop a descriptive profile.
2. Sector analyses which study the dynamics of the sector.
3. Sector strategies which identify courses of action.
4. Sector plans or programmes which specify sets of activities to be undertaken in a specified period to implement a sector strategy.

Often the results of such missions are incorporated verbatim into national plans. At the very least, they effect very directly what is incorporated into the national plan if they have resulted in funds from the agency doing the study.

Problems of coordination of such activities are being examined by the examined by the various agencies in a series of occasional conferences at Bellagio in Italy. The first report of the Bellagio conferences has been issued [51], and future reports will be forthcoming. These reports call for greater cooperation between the agencies, for greater dissemination of information on educational developments and innovations in the developing countries, and improved strategies of educational planning and development.

Other influences of the international agencies are felt as a result of regional conferences of ministers of education, sponsored by Unesco and various regional groupings. Targets set by these conferences and models (i.e. 47) for assessing the possible results of changes in educational policy, developed by regional groupings, set regional standards and goals which affect national policies.

Universities and Research Centres

Finally, the influence of universities and research centres in developed countries on educational planning in developing countries cannot be underestimated. Staffs of planning offices are generally trained in universities in industrialized countries, and research of these centres influences the approaches tried by those prepared in the centres. For instance, there are groups of scholars who specialize in international and development education problems at the Universities of Chicago, Massachusetts, Harvard, Pittsburgh, Stanford, and Michigan State (to name a few) in the United States; at the Ontario Institute for Studies in Education in Toronto; at the Institute for the Social Studies at the Hague; at Nanterre and Vincennes Universities in Paris; and at the Universities of Sussex, of Reading, and Bradford in the United Kingdom. There are a few such centres in developing countries, but hardly of the influence of those mentioned.

At many of these centres, both quantitative and qualitative interests mingle hand in hand. Along with specialists developing sophisticated simulation models (10, 11, 12, 15, 47), designed to show the inter-relationships between decisions in a national education system are social theorists looking at the meaning of it all (18, 28, 33, 45). More of this kind of activity is needed in each national context.

The Future

It is best to approach the future in educational planning with a healthy scepticism. Educational planning, in a very real sense, can imply authoritarianism of the technocrat. And as a distinguished Latin American sociologist recently remarked, this kind of autocracy of impersonal ideas can be very oppressive.

Educational planning abounds with impersonal theories, most of which are as yet unproven in practice. At one end of the spectrum are the critics of education who suggest a 'conflict theory' whereby progress is achieved by abrupt change that cannot be planned, only fomented by power struggles. Certainly, political power is at the centre of social, economic, and political change, for it is through power that resources are allocated and policies set. I, for one, however, am more partial to the 'equilibrium theory' which suggests improvement through small, incremental changes which improve society constructively over a period of time (although not, of course, without some conflict and struggle).

I feel we can be optimistic. Those in various disciplines are learning to talk to one another; the theoreticians are learning to talk with the practical operational specialists. Out of this foment can only come a better understanding of the role of education in social and economic development, and more knowledge of appropriate and useful ways in which planning can be helpful in achieving goals of nations and of individuals.

In summary, it can be reasonably concluded that:

1. Most educational plans to date have largely been limited to simple forecasting, and even this (though often using elaborate mathematical models) has usually proven to be lacking in the sophistication necessary to predict the future. Political and social factors which affect decisions on educational expansion have not been incorporated sufficiently into such forecasts.

2. There continues to be need for better quantification of what exists in the educational systems of most countries, both within the formal and non-formal sectors. Especially lacking, however, is good knowledge of qualitative aspects of education as it relates to the aspirations of individuals, communities, and governments.

3. Trends in some countries to combine planning functions with educational research, development, and evaluation functions show promise (i.e. Korea). Such efforts are not limited to hypothesizing on what might be possible, but include continuous research, development, and evaluation to test out and validate hypotheses.

4. New economic-development strategies, such as those which stress employment and income distribution, will increasingly affect what happens in the education sector and suggest that educational planning (both quantitatively and qualitatively) must be linked more closely to new concepts of development.

5. It is unlikely that major innovations which can completely overhaul the system in one master stroke (via satellite education, non-formal education, or what have you) will be found to be feasible. The future probably lies in many small incremental changes through continuous research and development strategies linked to planning efforts.

6. Plan implementation will improve as planners learn how to work more closely both with other ministries and communities, parents, teachers, employers, and legislators. The quantifier, who only knows models and statistical tools, is useful, but only under the supervision of broadly experienced strategists who can understand the total economic, political, and social context of education.

7. The multi-national and bilateral agencies and specialized training programmes in universities of developed countries must concentrate on helping developing countries establish more sophisticated and broadly based planning, research, and development networks in their own countries. The reliance of many countries on outside teams of planners who buffet the local system from many sides can be dysfunctional. Each country must develop its own capacity for continuous educational planning, research, and development in the search for education that has the quality, relevance, and efficiency appropriate in the national context.

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